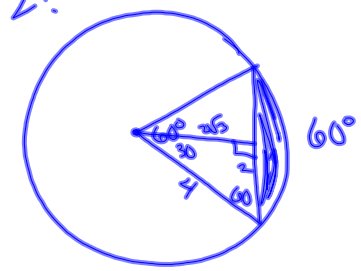
29.



$A_{sector} - A_{\triangle}$

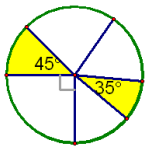
$\frac{60}{360} 16\pi - \frac{1}{2} 2\sqrt{3} \cdot 4$

11-7 Use Geometric Probability

Probability = $\frac{\text{\# of successes}}{\text{\# of outcomes}}$

ex 1

What is the probability that a point (in the circle)chosen at random lies in the shaded region?



d = 18 in

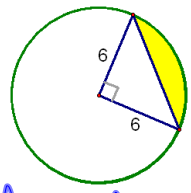
$\frac{80}{360} \approx .22$

or $\frac{2}{9}$

Probability = $\frac{\text{\# of successes}}{\text{\# of outcomes}}$

ex 2

What is the probability that a point (in the circle)chosen at random lies in the shaded region?



$\frac{A_{shaded}}{A_{circle}}$

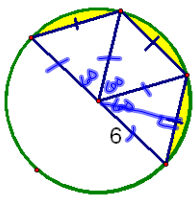
$\frac{A_{sector} - A_{\triangle}}{A_{circle}}$

$\frac{\left(\frac{90}{360} 36\pi - \frac{1}{2} 6 \cdot 6\right)}{36\pi} = .09$

~~Find the area of the shaded region.~~

Probability = $\frac{\text{\# of successes}}{\text{\# of outcomes}}$

What is the probability that a point (in the circle)chosen at random lies in the shaded region?

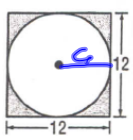


$\frac{\frac{1}{2} 36\pi}{(36\pi)} - \frac{3\left(\frac{6^2\sqrt{3}}{4}\right)}{(36\pi)} = .09$

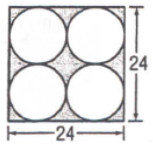
$\frac{Sq - Circle}{Sq}$

$\frac{12^2 - 36\pi}{12^2} = .21$

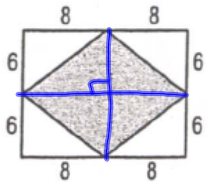
3.



4.



5.



Rhombus

Rect

$\frac{\frac{1}{2}12 \cdot 16}{12 \cdot 16} = \frac{1}{2}$

.5

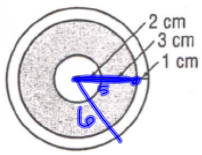
Shaded

$\frac{25\pi - 4\pi}{36\pi}$

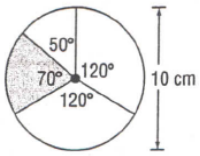
$\frac{21\pi}{36\pi}$

.58

6.



1.

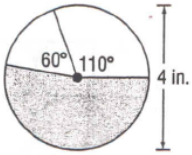


$\frac{70}{360}\pi 5^2$

$\pi 5^2$

= .19

2.

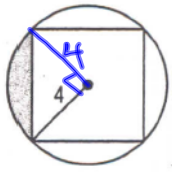


$\frac{\frac{1}{4}16\pi - \frac{1}{2}4 \cdot 4}{(16\pi)}$

$\frac{4\pi - 8}{}$

= .09

3.



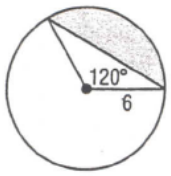
$\frac{1}{4}(A_{circle} - A_{sq})$

$16\pi - (4\sqrt{2})^2$

32

$4\pi - 8$

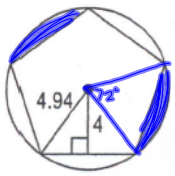
4.



$360 \div 5 = 72$

$\frac{72}{360}(4.94)^2\pi$

6.



$$\frac{-\frac{1}{2}4(5.8)}{4.94^2\pi} = .10$$

HW
p773-774
#s 3, 4, 8-11, 20, 21